



NASHVILLE JOURNAL

= OF=

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CHARLES S. BRIGGS, A. M., M. D., Editor and Proprietor E. S. McKEE, M. D., Cincinnati, Associate Editor

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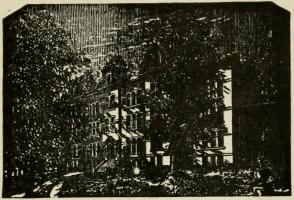
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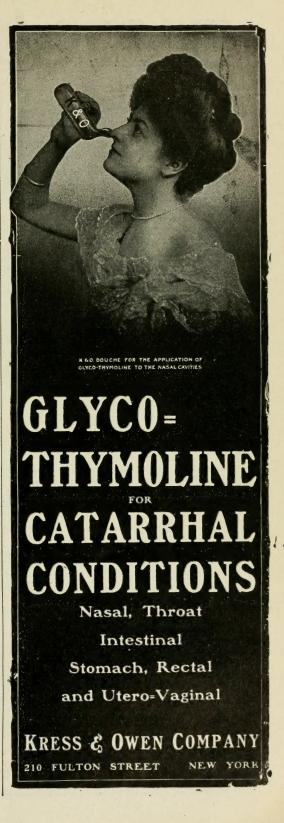


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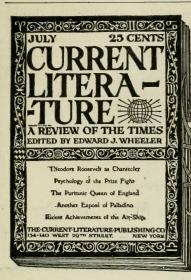
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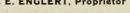


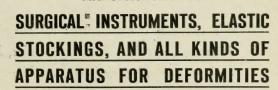
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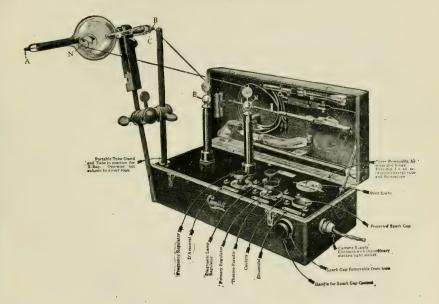
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NASHVILLE JOURNAL MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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JANUARY, 1913.

No. 1.

Original Communications

A. C. E. AS AN ANÆSTHETIC.

By W. T. BRIGGS, M.D., Nashville, Tenn.

One can seldom pick up a medical journal without seeing one or more article on anæsthetics, and so I open this article by offering apologies to those who read it if perchance they find their time has been wasted. All these numerous articles are poured forth on the medical profession simply because of the various opinions in regard to the relative safety of the different anesthetics now employed, the different methods of administration, whether morphine and atropine, atropine alone, or other drugs are to be used previous to anæsthesia, and if so, how long before commencing the administration of the anæsthetic and on what class of patients, the best stimulants to use when anæsthetic collapse occurs, and finally the best methods to employ to prevent post-anæsthetic nausea. The least that can be said so far as regards their relative safety is that each and all are dangerous, and this one fact above all others should be impressed on the student and the young practitioner, for if he commences practice inclined to disregard the dangers incident to anæsthesia he will sooner or later be brought face to face with death, and can consider himself lucky if this disaster can conscientiously be attributed to some cause other than his own carelessness.

Any drug that prevents pain so absolutely as anæsthetics do is necessarily dangerous, and while in the future some relatively less dangerous drug may be found, it will still carry its element of danger, ever ready to destroy life should the anæsthetist become careless. The surgeon who tells his patient that anæsthetics are not dangerous-fortunately there are not many who do this-forgets that not only these drugs, but that quinine, potassium iodide, and other drugs in every day use, drugs that are ordinarily prescribed in large doses, are also dangerous and occasionally kill, even in small doses, whenever the patient has an idiosyncrasy. Therefore we must always bear in mind the possibility of an idiosycrasy toward anæsthetics. Unfortunately, however, we can not discover this small class of patients until we try the drug, and then it is sometimes too late. We do know that patients suffering with hyperplasia of the lymphatic tissues, e. g., tonsils, adenoids, thymus gland, etc., stand anæsthetics poorly, especially chloroform.

At the present time by far the best anæsthetic we have, so far as safety is concerned, is nitrous oxide gas, especially when it is administered in conjunction with oxygen. This anæsthetic is becoming more and more popular, is being used in operations of long duration, as well as in minor operations, and some day may be *the* anæsthetic, but such is not, and can not be the case today.

The apparatus necessary for its administration is too bulky and too expensive for general use, to say nothing of the fact that the ingredients themselves are far more costly than most other anæsthetics.

Ethyl chloride has many of the advantages of nitrous oxide and oxygen, insofar as rapidity of action and freedom from post-anæsthetic nausea is concerned, but is even more dangerous than chloroform, and for that reason is not generally used. However, some surgeons use it in short operations, and it was formerly used as a preliminary to ether or chloroform, but now is not employed much, even in that capacity.

Ether and chloroform are used more throughout the world than all other anæsthetics added together, and Stuart McGuire, in his "Principles of Surgery," states that chloroform is used more than ether. The latter drug, according to statistics, is about four times as safe as chloroform, but we can not rely too much on these statistics, because they are compiled mainly from Eastern and Northern sources, and by no means include all cases; in other words, there are thousands of successful administrations with chloroform on the continent and in Southern countries that are not included in these statistics. It seems that chloroform is given with less danger the further South we go. This may be due to some difference in the metabolic processes in individuals of Southern races, but when we consider that so far no one has discovered any marked variations in the metabolism of Northern and Southern races, and that chloroform usually kills the patient at the commencement of the anæsthetic, and that so far as previous preparation of the patient, room temperature, temperature of the anæsthetic, etc., are concerned, the conditions are practically identical, we must confess that the difference in mortality seems due rather to skill in administration than to difference in the metabolism of Southern and Northern races. However, few deny that chloroform per se., it matters not where or how administered, is more dangerous than ether. I am sure I do not. However, I do most strenuously deny that chloroform given correctly is so much more dangerous than ether, as it is claimed. Many of the chloroform deaths we hear of can be traced to lack of skill in administration. It has been my experience to see chloroform given by those accustomed to administer ether, and in most cases it has been given so rapidly that I expected to see death at any minute.

I remember a case of hernia in which first ether and then chloroform was used. The patient was a young negro. The operation lasted not longer than 40 minutes, and yet the patient took six ounces of chloroform and six and one-half ounces of ether. It is wonderful that the patient even left the table alive. Of course the above case is exceptional, but it is exceptional only in degree, not in kind. Men accustomed to giving ether are very apt to give too much chloroform, because they can not realize the wonderful power of the drug. If it is given in too large doses what can we expect but dangerous symptoms, even death

itself! Aconite is more dangerous than opium if it is given in the same dose, but none of us hesitate to give aconite. However, we do give it in the proper dose. Give it in overdose and you have a case of aconite poisoning. Give chloroform in over dose and you have collapse or death. Therefore the anæsthetist giving chloroform must know the power of the drug, and he must watch his patient. Most of the profession is of the opinion that chloroform is less dangerous in obstetric work. This may be true, and it may be due to the changes in woman incident to pregnancy, but what is more probable is the fact that as a rule it is given in small quantities and with plenty of air.

As there are certain selected cases in which chloroform is preferable to ether, and out of regard to the patient, should be used, regardless of the operator's views, I think in teaching the subject of anæsthetics, more stress should be put on chloroform and less on ether, inasmuch as the expert with chloroform handles ether better than vice versa. This is the case simply because the man who uses chloroform is more on his guard than the etherist. Theoretically such should not be the case, but practically it is.

While I have had some experience with ether and chloroform, I have administered the A. C. E. mixtures a great many more times than both the others combined. I have by the way seen dangerous symptoms develop from ether more often than from either A. C. E. or chloroform, although I have seen A. C. E. and chloroform given, counting in the times I have given them myself, more often than I have seen ether given. I know of several deaths in this city from ether, but only of one from chloroform.

I have seen dangerous symptoms during both the administration of chloroform and A. C. E., but in such cases the respiration only ceased, while the heart continued to beat. Such patients have always rapidly rallied. This stoppage of respiration before the pulse, I have also noticed in dogs, and according to the investigation of certain committees appointed to investigate this matter, this is nearly always the case in man. I give anæsthetics for the Briggs Surgical Infirmary in which institution chloroform is the anæsthetic of choice, but A. C. E. is usually given because

not a great many patients are suited to pure chloroform. A. C. E. is condemned as an anæsthetic by many just as many go so far as to say that the use of chloroform should be prohibited by the government.

These men may be right in their views, but if the use of chloroform were prohibited by law the mortality from ether would probably increase, because then ether would often have to be used in cases more fitted for chloroform and A. C. E.

Those who condemn A. C. E. do so on the ground that this mixture carries with it all the dangers of chloroform, all the disadvantages and few of the advantages of ether. Such statements are ridiculous. It can not be so dangerous as straight chloroform, simply because if the mixture is made up in the proportions, A.1, C.2, E.3, the patient can not possibly get as much chloroform vapor as ether, since there is more ether in every drop and more rapid evaporation of the ether. In order to be sure that each drop contains the proper proportions the bottle should be shaken now and then throughout the anæsthesia.

Narcosis, under A. C. E., resembles chloroform narcosis in the following respect:

- 1. Complete anæsthesia is produced more rapidly than with ether.
 - 2. The stage of excitement is hardly noticeable.
- 3. After anæsthesia is produced relaxation is more complete than with ether.
 - 4. Stertorous breathing is not often present.
- 5. Small amount to narcotize and small amount to keep the patient in that condition.
- 6. Less mucus and tongue swelling. I never have to sponge out the patient's throat or put forceps on the tongue.
- 7. Post-anæsthetic nausea is not so marked as with ether, but more so than with chloroform.
 - 8. Less danger of post-operative pneumonia.

No one would take exceptions to statements 1, 2, 3, 4. In regard to No. 5, will say that in quite a number of administrations I have seldom given more than three ounces during any operation, the operations lasting anywhere from 10 minutes to an hour

and a half. Usually a third of this amount is required to produce complete anæsthesia. The statements under 6, 7, and 8 can hardly be gainsaid. That ether is more irritating to mucous membranes than chloroform no one will deny. Since in A. C. E. ether is present we must expect some direct irritation to the lining membrane of trachea. So far as that is concerned pure chloroform is irritating, but not so much as pure ether, and since the irritation is less than with ether we expect and find fewer cases of pneumonia. If all the postoperative pneumonias following ether were added to its death toll I think statistics would change somewhat, even in the North. Post-anæsthetic nausea is in all probability reflex through the branches of the vagus. If the branches in the lung are irritated, nausea and vomiting occur reflexly, and the greater the irritation of the pulmonary branches the greater the nausea and vomiting. Hence ether causes vomiting more than chloroform and also more than A. C. E.

A. C. E. narcosis, because of the ether present, is safer than straight chloroform because:

1. The oxygen atom in the ether is stimulating to the respiration and heart, and the oxygen in the alcohol has same effect. For the same reason the vasomotor system is stimulated.

2. The irritation itself from ether stimulates the vagus, and through it the heart, causing slower and stronger pulse.

In this brief paper it is impossible to go into detail in regard to the indications for the use of ether, chloroform, or A. C. E. Suffice it to say there are few cases in which A. C. E. properly given is not safe. In regard to its administration, I wish to emphasize the following points:

- 1. The patient's confidence must be gained in order to allay all nervousness. For this reason it is often better, especially in private practice, to let the surgeon himself start the anæsthetic while the anæsthetist stands close by to watch the patient.
- 2. The Esmarch mask should be held an inch or so from patient's face, removed even further should patient show by movement that the vapor is too strong.
 - 3. The patient should be told to breathe naturally—not deeply.
 - 4. The patient's head should be raised by only a folded sheet,

and should lie on the side so as to prevent any tendency to tongue swallowing.

- 5. The anæsthetist should keep the jaw pushed forward, and with same hand he can feel the facial artery, but should always remember that respiration is the main function to watch.
- 6. In watching the respiration look at the abdomen, because respiratory movement here shows that the diaphragm is working allright.
- 7. If patient breathes shallow, listen to respiration. Sometimes the chest moves and yet no air enters the lungs.
- 8. When the initial incision is being made remove the mask, and do the same when the sphincter ani is being dilated. At such moments patients often take a deep breath and may get an overdose.
- 9. If patient is breathing very deeply from any cause remove the mask entirely or hold it some distance away.
- 10. Never let a cyanosed patient get a strong whiff of the anæsthetic.
- 11. Never cover the mask and face with a towel to hasten anæsthesia—the face is a good index of both the circulation and oxygenation, and A. C. E. is dangerous if large doses are given.
- 12. Remember that a dilated pupil reacting rapidly to light calls for more anæsthetic, and that a pupil showing no reaction to light, whether dilated or not, calls for cessation of the anæsthetic until the patient gets some air. I have found watching the pupil a great help.

In closing I wish to quote the following paragraph taken from Stuart McGuire's "Principles of Surgery:"

"Nussbaum has seen in military life 40,000 chloroform anæsthesias without an accident; Hunter McGuire reports 28,000 administration in the Confederate army corps of which he was a Director without a fatality, and I, in private practice, have been present at 15,000 operations done under chloroform without a death from its use."

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The above extract shows that in proper hands pure chloroform is not so dangerous as our statistics show, and that our death rate for chloroform of 1 to 4,000, and for ether of 1 to 20,000, is a reflection on the profession, and it further shows that A. C. E., since it has many of the advantages of pure chloroform, and yet is not as dangerous as that drug, could be used with relative safety were the administration of chloroform better understood.

Proceedings of Societies

THE ACADEMY OF MEDICINE, CINCINNATI, OHIO.

Monday, December 9, 1912.

SURGICAL SECTION.

Symposium On Infections in the Bile Passages.

Etiology and Pathology.—Dr. Paul G. Woolley.

Symptoms, Course, Duration, Complications, Etc.—Dr. O. P. Holt.

Discussion.— Medical, Dr. George Fackler; Surgical, Dr. Jos. Ransohoff, Dr. C. A. L. Reed.

Notes.

Dr. Henry L. Woodward presided.

Dr. H. K. Dunham presented a patient on whom Dr. Hamman, of John Hopkins, had done an artificial pneumothorax at the Branch Hospital three weeks ago. This operation has been repeated twice since, and patient was presented to show present condition with view to presenting him later with full report. He also showed X-ray of the abdomen in a woman with visceroptosis, who thought she had been cured by Christian Science, but almost lost her life by delay.

Dr. Rufus B. Hall reported two cases of gallstones with unusual complications (full report will appear in Lancet-Clinic).

Dr. Alfred Friedlander then read the report of the Milk Commission as to general progress and comparison with other years. (Will be published in the Lancet-Clinic.)

Dr. Henry L. Woodward, treasurer of the Milk Commission, then read the financial report, showing a loss on the operations for the fiscal year, ending August 31, 1912, of a little over \$10.

Dr. Robert Sattler presented brief case reports illustrating uncommon ocular symptoms: (1) Sudden total blindness, acute nephritis and uremia; (2) lesion of the hypophysis cerebri, optic atrophy; (3) sub-hyaloid hemorrhages of the retina in pernicious anemia.

Discussed by Dr. A. Friedlander, Dr. K. L. Stoll, Dr. C. W. Tangeman, and, closing, Dr. Sattler.

Dr. Edwin Shields then read the paper of the evening: "Mercury vs. Salvarsan in the Treatment of Syphilis." Dr. Shields took the ground that in so far as salvarsan had not proven a cure in any very definite percentage of cases, and that practically all authorities advise mercury in conjunction with salvarsan, he thought it better to still rely on mercury in the treatment of syphilis. His paper was most excellent, and based on an extensive experience and very carefully collected statistics. He spoke of the dangers incident to the administration of salvarsan and the absence of mortality with the use of mercury. He advised inunctions and injections as the preferable mode of administration.

Dr. A. Ravogli discussed the paper and said he had seen fatalities from mercury, and, while he agreed in the main, he still thinks salvarsan should be used, as it will take a long time yet to find its true value.

Dr. M. L. Hedingsfeld, in discussing, said that salvarsan properly used did not give any bad results, and that his per cent of cures were good; the Wassermann should be our control in treating these cases, and that more syphilis was cured today than ever before. He advised freshly distilled water as a vehicle and careful laboratory work to check up the results.

Dr. Herman asked if any cases of deafness had been reported, as he had seen one case follow in three weeks.

Dr. S. G. Kinke spoke of stomatitis as a guide to mercury saturation, and of the rules of the army—diet, no alcohol and special care of the teeth.

Dr. Souther spoke of the impossibility of reaching the spirochæte in certain lesions or pathological conditions in syphilis, of the effects of mercury and K. I. on nerve tissue, and that it probably caused some of the neuritis that was charged to syphilis; of

the rapid elimination of salvarsan, and the probability that mercury really did more harm than salvarsan.

Dr. Shields closed the discussion.

Monday, December 16, 1912.

"Report of Scientific Researches on Milk Fever and Its Probable Connection with Eclampsia."—Dr. J. H. Kassell and Dr. D. J. Heally, of the Kentucky Experimental Station.

Notes.

Dr. W. A. Gardner and Dr. Geo. E. Orebaugh were elected to

membership.

A communication from the Ohio Valley Druggists' Association was read, asking if a joint meeting could be arranged for the Association and the Academy, at which time Dr. P. G. Heinemann, of the University of Chicago, who is in charge of the department that prepares the memorial antitoxin, will give an illustrated lecture as regular order of business.

On motion of Dr. A. G. Drury, seconded and carried, Monday evening, December 23, the regular case report night, was set for the arranging of the joint meeting, said joint meeting and lecture

to be the regular order of business.

December 16 (next Monday night) nominations for officers of the Academy for 1913 will be made from the floor, and an election committee will be appointed by the chair to receive and count the ballots. Voting as usual will be by mail or in person, ballots to be turned in before the meeting opens, on first meeting night in January (6th).

Dr. S. P. Kramer presented patient from whom he had removed a brain tumor. He also presented the specimen. He stated in the report that he had done the operation at one sitting and that the patient had a pronounced shock following the work. He advises to do the operation in two stages, as a rule. (1) Remove the skull; (2) in a few days to then attack the tumor, as this produces much less shock.

Dr. John E. Greiwe presented a patient the subject of a pneumothorax due to a rupture of the lung (accidental, not artificial). Patient had emphysema and long-standing bronchitis, attack came on suddenly and produced great dyspnea and weakness; this cleared upon rest in bed. Several splendid X-ray stereoscopic pictures were shown to illustrate stages of the pneumothorax.

Dr. E. G. Zinke reported a case of procidentia in which was also found a large gall-bladder filled with gallstones. Case reported on account of almost freedom from any symptoms pointing to the gall-bladder, yet the patient had two or three ounces of small stones.

No discussion on these cases on account of the lateness of the hour.

Symptoms on Infections of the Bile Passages.—Dr. Paul G. Woolley, in discussing the etiology and pathology, took up the possible avenues of advent of infection, and the different forms of bacteria that were most frequently found to be the cause of inflammation of the bile tracts; the possible effects on the pancreas and the types of and degrees of infection that may result from different forms of bacteria, typhoid and paratyphoid bacteria receiving most attention. The effect of biliary obstruction on the liver and pancreas was considered from a pathological standpoint. (Paper will be published in The Lancet-Clinic.)

Dr. Oliver P. Holt spoke on the symptoms, course, duration and complications. He took up in a very careful and complete manner all the symptoms of gall-bladder disease, as it occurs when the bile passages are alone involved, and then considered the symptoms of the different conditions that might in any way be mistaken for gall-bladder trouble, following with a differential diagnosis of pancreatic, stomach and duodenal conditions. He advised that surgical intervention be resorted to before complications had converted an easy operation in one of the most difficult problems with which the surgeon has to deal.

Dr. George Fackler opened the discussion on the part of the medical man, saying that the medical side could be rather briefly considered, as after a fairly conclusive diagnosis had been made that the curative treatment was distinctly surgical. The greatest

work of the medical man was in proper care of the cases during the acute periods and relieving of symptoms and preventing complication. He agrees with Dr. Holt as to the advisability of surgical treatment before complications, and at a time when mortality was at its lowest point. He spoke of the cardio-vascular changes that accompany long-standing gall-bladder infection, and of the changes in the liver and the possibility of malignancy.

Dr. Joseph Ransohoff opened the discussion on the part of the surgeon by reading from the Medical Record, 1882, of his first operation for gall-stones, which he said was the third deliberately planned gall-stone operation in this country. He took a rather more conservative stand than did the medical men, and said that in rare instances gall-stones were gotten rid of without surgical intervention, but that waiting was not justifiable. Operation should be done early before the cases are complicated. He said a second and even a third operation was at times necessary, and that a second crop of stones could form.

Dr. C. A. L. Reed took up the possible relation of pelvic infection as an etiological factor in hematogenous infection, also the relation of general urunculosis to infection through the blood or lymph stream. He said he had only one time to do a second operation. He also spoke of the pioneer work in this field, and of the advisability of simply draining the gall-bladder; also of the advantage of having the gall-bladder left in, in certain cases, where it was thought best or necessary to do a cholecy-stenterostomy.

It will be greatly appreciated by the secretary if the essayist will hand in a one-hundred word synopsis of his paper for the Bulletin.

Selected Articles

RECENT FRENCH PROGRESS IN MEDICAL RENAL DISORDERS.

By CECIL KENT AUSTIN, M.D., Paris, France.

The lay scoffer is still very much to the front with his timeworn taunts against the medical man, whom he looks on as an individual sleepily gyrating in a never varying circle, his shoulders burdened down with tradition, prejudice, and etiquette. Look at the surgeons," he cries; "see the wonderful things that they are accomplishing. Why can not you physicians accelerate the pace a little bit?"

We of the medical side are still, unquestionably, struggling with difficulty against our multitude of determined pathological adversaries, no such extraordinary and colossal streak of luck having as yet fallen to our lot as to the gentlemen of the knife, whom a clear-seeing chemist (and not a surgeon) freed forever from the nightmare of infection, with a single discovery clearing the field for all their future audacities. But still, however much our present status may leave to be desired, when compared with the complacency and liberty of action of the surgeon, the immense effort that is being put forth by the medical profession in the different countries is slowly but surely bringing their province also gradually out of darkness into light, and reducing into some semblance or order what has until recently been a state of affairs not altogether dissimilar to primeval chaos.

The special field of which I wish to speak today—medical nephritis—has been one of the latest to be taken in hand. But the work that has been accomplished in this branch during the past ten years, and in particular by a set of young French scientists in Paris, has at last brought it also into line and introduced into it a certain degree of general order, whereas previously a bewildering state of incoherence was the best that was at our disposal.

The researches of Widal, Castaigne, Archard, Javal, Albarran, Ambard, and others have, as a matter of fact, effected for nephritis very much the same fundamental clearing work as was carried out by Charcot when he first took hold of diseases of the nervous system fifty years ago. For I think that it is no exaggeration to say that if a physician who graduaed only fifteen years back, and who, let us say, for one reason or another had paid no attention whatever to kidney diseases since that time, were today to pick up the most recent French monograph on nephritis, he would find himself in an entirely new atmosphere of which he hardly understood even the terminology. He would, in fact, be obliged to begin by forgetting all that he had ever learned on the subject, and take it up entirely anew.

For what did the man of only fifteen years ago know about nephritis? He was taught that there were acute and chronic forms, and parenchymatous and interstitial varieties; he studied under a microscope the big white kidney and the small retracted one; he tested the urine for albumin; and, if he was an advanced laboratory man, he experimented with urinary toxicity. Then when that had been done he told his patient to go on a milk diet for the rest of his days—full stop—and that was all. If, as not infrequently happened, his client had a rooted aversion to milk in any form, the medical adviser had practically no alternative to offer, and the patient got along as best he could on any haphazard regime.

That was all only a short time ago, the first step in advance having been made by Widal at the beginning of the century. These researches and experiments of Widal's concerning the action of faulty elimnation of chlorides in producing edema in certain forms of nephritis were followed by similar demonstrations as to nitrogen retention in the blood. Various means were devised for testing clinically the value of the kidney as a filtering organ. An entirely new classification of nephritis was advanced and accepted by everyone. The old state known as uremia was given another name and divided into altogether new forms. And, last and principally, the whole question of treatment, after all the only one of importance, was completely revolutionized and put

on an intelligent and reasonable basis, to the relief of the medical man, and to the incalculable benefit of the patient. Since all of this work is relatively new, and has appeared in French; and since there are reasons for believing that even in its land of origin it has not yet found its way into the rank and file of practitioners, many of whom have not even grasped the significance of the simple chloride idea, but believe that all persons presenting medical albumin in the urine must be put on a chloride-free diet, it seems as though a brief review of the present situation may not be untimely. This I shall do in as general and elementary a fashion as possible, simply to call attention to the matter and awaken interest in it, referring the reader desirous of more complete information to any one of the many monographs that have appeared in France on the question of late, but above all to Castaigne's small handbook "Les Maladies des Reins," published only a short time ago.

In the conception of the young French school the old anatomical classification of nephritis is set aside as being of merely academic interest; their view of the question is a purely practical, clinical one. They treat the kidney as a common filter, which may or may not be carrying out its function properly. When it does so it is called permeable; when defective, more or less impermeable, such impermeability being at times elective, at others general. Defective action may be either plus or minus; that is to say, the organ may either filter too freely, for instance, it may allow substances to escape that are usually retained in the blood, as is the case when albumin appears in the urine; or it may not filter sufficiently, damming up in the blood and its outlets substances that normally pass freely through the filtering organ, such or chlorides or urea. Such defective filtering, when minus, often reacts on the circulating system, heart and arteries, producing degenerative lesions, increased tension, cardiac hypertrophy, etc.

These few general ideas will render comprehensible the classification now introduced of medical nephritis, which is divided into four forms: albuminous, chloremic, uremic, and cardiovascular—the four being susceptible of a variety of combinations. It

should here be stated with particular emphasis that in the present order of things uremia refers to an altogether new conception, the retention of urea in the blood, and not to the old idea of the general terminal state of nephritis preceding death; that is now known as renal insufficiency. This point can not be too carefully borne in mind.

The conception of the kidney as a more or less permeable filtering organ has led to the creation of an entirely new chapter in the question, the study of the means to be employed for ascertaining clinically the degree of permeability of a patient's kidneys. And I can not give a better idea of the amount and importance of the work that has recently been put in in this department than to point out that Albarran's book on the means for testing renal permeability is a work of five hundred pages. Fortunately, however, it is not necessary for the practitioner to go into the subject quite to that extent, and at the present time it will be amply sufficient for him to use, when circumstances seem to indicate it, the methylene blue test, which is extremely simple and well within the attainments of the most ordinary practitioner. A hypodermic injection of one cubic centimeter of a solution of methylene blue is made, under specified conditions, and then the urine is taken at frequent intervals and its color noted. This blue passes very quickly into the urine, whose coloration, under norcal condition, rises steadily to a certain intensity in a given time, remains there a while, and then decreases to extinction, also in a fixed period. The whole affair can be indicated by a graphic curve, resembling somewhat the chart of a pneumonia patient; its laws are now well known, and it is the greater or less deviation from the normal type that reveals the degree of impermeability of the kidneys.

Attention having been called to the kidneys by certain symptoms, possibly by the discovery of albumin on routine examination, as for life insurance, the problem for the physician is the following: To test the efficiency of the renal filter, and, in case of deficiency, to ascertain whether there is chloride or urea retention; also to explore the condition of the cardiovascular sys-

tem, degeneracy, high tension, hypertrophy, galloping rhythm, etc.

A patient with albumin in his urine may be otherwise in an absolutely satisfactory condition, and remain so for years and years. His filtration may be perfect to the methylene blue, his tension and heart normal, and there may be neither chloride nor urea retention. Such a patient can therefore be allowed wide liberty in diet; he merely requires careful watching and retesting at regular intervals, but on the whole his lot is by no means an unhappy one. In former time he would, of course, have been to a milk diet, *nolens volens*. This is practically an entirely new type of nephritis in medicine, one that is by no means rare, and a class of patients which has derived benefit from the advance in the study of nephritis.

Another patient, with more or less edema, will be found to show a large amount of albumin in the urine, and there may be headache, dyspnea, nervous symptoms, or convulsive attacks. The test with methylene blue is normal or even plus; cardiovascular signs are absent; the amount of urea in the blood does not exceed the normal maximum of half a gram per liter; but the patient is found to be in a condition of chloride retention, the power of filtering this substance being for the time arrested in the kidneys to a greater or lesser degree. This chloremic type is a common form of acute nephritis, and is most interesting as a subject of study on account of the facility and accuracy with which an excess of chlorides in the system can be demonstrated to be the edema-producing factor. For reasons still unknown, as soon as the percentage of sodium chloride in the blood exceeds the normal figure. Nature gets rid of it at once by pouring it out of the circulation into the interstitial and cellular tissies, or into the virtual cavities of the body. Once there, however, the sodium chloride can be tolerated by the tissues only at a given point of dilution; it therefore attracts to itself the necessary amount of serum for this dilution, and it is this process that gives rise to the various forms of edema, anascara, effusions into the peritoneal, pericardiac, or pleuritic cavities, or to the more insidious conditions of interstitial infiltration of the viscera—brain, lungs, or digestive tract. These deeper forms can exist quite separately from the superficial, visible forms, and are the basis of most of the clinical visceral symptoms of this condition-headache, disordered sight, vomiting, dyspnea, etc., as can be so readily demonstrated by a chloride-reduction diet or lumbar puncture. Of the two forms of nephritis retention, the chlorides and the urea group of substances, this is by far the least serious and most amenable to treatment. Nothing can be more gratifying to the practitioner than the way in which a typical case of this category reacts to intelligent management. Such a patient, with proper handling, will in a few days' time pass from a water-logged condition with headache, dyspnea, and vomiting, to one of comparative comfort in which he can confidently await a gradual return to relative health. This class of cases also has benefited enormously from the new ideas as to the diet suitable to such conditions. The old milk diet was, to be sure, already one in which the chlorides are reduced to a very low figure, about 11/2 grams per liter; but its weak point was that to a system already burdened with an excess of liquids it brought a still further excess; so that the end, though attained, was attained much more slowly than by the present method. It had been found empirically to fill the bill, but it did so only in a lame and half-hearted manner. Nowadays this type of patient receives an almost luxurious diet; plenty to eat, but only articles containing a minimum of NaCl, such as meat, fresh-water fish, eggs, dried leguminous vegetable, cereals, herbaceous vegetables, fruit, milk and fresh cheese, and a variety of minor substances for seasoning. The preparation of many of these dishes without salt does not render them particularly palatable, and it is not long before the average patient commences to cry out for his usual seasoning in a more or less determined fashion. But to begin with, when dealing with one of the many people who have a horror of a milk diet, the physician is only too thankful to have at his disposal this precarious alternative; and in the next place, it is generally possible by this means to gain the necessary few weeks for tiding over the crisis, at the end of which period it is admissible to allow the patient a weighed amount of 2 to 3 grams of NaCl per diem, which he can distribute over his food as best he sees fit, without any very great detriment to his progress.

The next form we have to deal with is perhaps the most interesting, on account both of its relative newness and of its great clinical importance, since in a way it commands the entire prognosis in chronic nephritis. In the case of the albuminous form, the chloremic variety, and the cardiovascular type yet to be considered, the patient's outlook, at least for the immediate future, is as a rule fairly good. Under proper management, and granting the necessary docility in submitting to diets often not particularly appetizing, the patient's survival is frequently a very protracted one, although the remote prognosis is always serious. But with the appearance of urea retention opens the period of storms; so that with any case of renal impermeability the all-important point is: Is there or is there not urea retention; if so, what is its percentage, the prognosis being based on that detail in a manner that can almost be called mathematical?

Differing in this respect from chloride retention, urea and its minor relatives, when prevented from passing through the renal filter in a normal fashion, do not flow out of the circulation into the surrounding tissues, but remain in the blood or in the normal or pathological humors of the body, and experience has shown that their percentage is alike in all of them, whether blood serum, spinal fluid, or effusion into a normal cavity (pleurisy, ascites, etc.) Now the amount of urea in these liquids has to be measured by the customary chemical processes. When there is no effusion present, and when spinal puncture is not indicated by some predominating symptom, we are obliged to fall back on blood serum, of which about 10 cubic centimeters are required for an analysis. This can be obtained by wet cupping or by the insertion of a needle into a vein. When lumbar puncture has to be done the opportunity should never be omitted of making the necessary dosage; but the ideal situation (for the experimenter) is that in which there is effusion into one of the natural cavities; in such a case the practitioner has constantly the material at his disposal for all the tests he may desire.

Now experience has shown that the extreme normal limits for

the urea percentage in these liquids extends from 0.15 to 0.5 centigrams per liter of serosity. In the zone extending from 0.5 to 1.0 gh. come the moderate cases of urea retention, those in which the danger is not immediate. But from one to two grams denotes a serious condition, in which the patient generally does not last more than a year; while above two, through three, and up to four, the survival is a question merely of a few weeks or at most months. The estimation of this percentage is a little beyond the capacity of the average medical man, but well within that of any chemist, and nothing is easier than to take the required amount of serum from a patient and mail it to a laboratory in the nearest town, where the test can be made in a few hours.

This category of patients also has profited greatly by the changed ideas as to the diet best suited to such forms of nephritis. Since the pure types of this variety are quite "dry," that is, show no edema whatever, the question of liquids is with them one of minor importance; what they chiefly require is a diet in which nitrogen is either very much reduced or eliminated entirely. This is possibly an easier regime to establish, and to get the patients to accept, than the chloride-reduction diet. It consists in prescribing nothing but sugar and starches. Of these there is a wide scale, and a moment's reflection will show any medical man that it is far easier for a patient to eat a lot of grapes, a baked potato with butter, or rice with sugar and cinnamon, than it is meat, lentils, or bread without any salt.

The fourth, or cardiovascular type, is such a familiar one that there is nothing particularly new about it to render it of special interest for the moment; so we will pass immediately on to the consideration of renal insufficiency (formerly called uremia.)

This condition in reality scarcely deserves special description, since it is naturally not a morbid entity by itself. There is always renal insufficiency, from the moment that either of the two main forms of retention sets in, uremic or chloremic; it is only a question of degree. The old term uremia merely denotes the stage at which these conditions enter the danger zone. There are, then, these two varieties of insufficiency, the prognosis of the one, the dropsical form, being infinitely less alarming than that

of the other, the "dry" and more insidious variety. The main clinical symptoms of the latter are, in addition to a watery urine containing a relatively low percentage of albumin, first, a loss of desire for food, extending sometimes to positive repulsion; second, cerebral torpor; third, puritus; fourth, retinitis.

Treatment of the dropsical forms (chloremia) having already been referred to, that of the uremic type must now be mentioned. As good a way as any to begin with is what is known as a Guelpa cure of two to five days: this consists in an absolute water diet, with or without lactose, and a brisk purgation each morning. If there is no chloremia accompanying the uremia, a glass or two of a natural purgative water will suffice; in the opposite case scammony, or calomel, or some similar non-salt preparation, will be more advisable. This can be followed for a few days by a grape cure, during which the patient is required to consume two to three kilos of ripe, sweet grapes per 24 hours. At the conclusion of this stage the glycoamylaceous diet should be gradually established, and the patient given to understand, in guarded language but clearly, if possible, that the situation is a serious one and the outlook for the immediate future grave; and the relatives should be warned, according to the uremic degree reported by the chemist, as to the probable duration of the patient's survival.

In the foregoing paragraphs an effort has been made, under perhaps not altogether ideal circumstances, the article having been written at sea away from works of reference, to give a bird's-eve view of the present state of this question in France. It is one with which every practitioner should lose no time in making himself familiar, as it has been rendered in the hands of its gifted promoters preëminently practical and clinical. Whether considered from the viewpoint of diagnosis, prognosis, or therapeutics, it is of the deepest interest and importance. Nephritis is a common everyday disorder. Up to a few years ago this question was in a state of utter darkness, and the treatment of the condition blind empiricism. But at the present time, thanks to the unremitting efforts of perhaps two men—Widal and Castaigneit has been put on a matter-of-fact, intelligible basis, and the service thereby rendered to this large class of patients can not well be overestimated.—*Medical Record*.

20, Rue Chalgrin.

Extracts from Home and Foreign Journals.

SURGICAL

Increase of Newer Abdominal Surgery Due to Increase in Toxic Disturbances.

Dr. Robert T. Morris, New York City, pointed out that cobweb adhesions in the attic of the abdomen belonged to the toxic group of manifestations, and said we were learning a great deal concerning how these toxic impressions lead to the formation of adhesions in cases without an acute inflammatory onset. In some instances bacteria penetrated the wall of the bowel. The endothelium was shed as a result of their presence and the lymph which exuded become disorganized and formed permanent adhesions that were common in the region of the cecum, largely in the region of the sigmoid, and largely in the region of the pylorus and the bile tract. Why were we having more abdominal surgery relating to Lane's kink, to Jackson's membrane, to cobwebs in the attic of the abdomen, than we ever had before? For the answer, we would turn to the statistics which were being collected by the Equitable Assurance Association of New York. This company found a rapid increase in insanity, and a rapid increase in the number of cases of arteriosclerosis. They found a rapid increase in the number of cases which belonged to the stage of decadence. When there was arrested development as a result of the decadent change that was now taking place in all the civilized nations in our present cultural period, physical defects or stigmata, as classified by phsychiatrists, were increasingly in evidence. What were we going to do about it? Surgery had a place in a number of this group of cases and could afford much help, but the other part of the question related to a better development of individuals in the race. It was a question which was not under the control of the surgeon, but belonged to the physiologist and to the eugenist, and surgery, he believed, was very important in that it would require a higher degree of skill on the part of the surgeon decade after decade, and it would require him to be more alert and better able to analyze cases than he had been able to do before. There would be more Jackson membranes, more Lane's kinks, and more adhesions than before, due to the increasing toxic conditions which belonged to the decadent stage of our cultural period.—

The Lancet-Clinic.

Gunshot Wounds of Intestine Without Perforation of Lumen.

In Thornburgh's case 35 cm. of ileum was completely denuded of its peritoneal and most of its muscular coat. Its mesentery was destroyed. There were three wounds in the descending colon and very numerous wounds of the mesentery. No perforation of the intestinal lumen could be demonstrated. No further The wounds wounds of the viscera could be found. of the colon were inverted with purse strings or Lembert's, and attention was then directed to the wounded ileum. The patient was in such a condition of profound shock that resection of gut and mesentery was out of the question. The excellent proceeding, splitting the mesentery, described by Richardson, was also impossible, owing to the fact that the mesentery was destroyed. Thornburgh decided to try substitute omentum for the outer two coats of the ileum as well as for both layers of mesentery. The omentum was brought down and sutured to the superior surface of mesentery and gut by interrupted sutures. It was then carried over to the inferior surface and attached in like manner. The patient was drained in front and behind and placed in the Fowler position with the Murphy drip for the first twenty-four hours. The drip was discontinued after the first twenty-four hours and not resumed. The Fowler position was maintained for about two weeks. The convalescence was perfectly normal. There was no infection of any kind and the patient has perfectly recovered.— The Journal of the American Medical Association.

THE SURGICAL TREATMENT OF AORTIC ANEURISM.

John A. C. Macewen, M.B., C.M., of Glasgow, in Annals of Surgery, November, 1912, considers the treatment of aneurism, otherwise inoperable, by the method of "needling," and reports a case so treated with a favorable outcome. The patient was a woman, 40 years of age, who had suffered from aneurism of the arch at least a year, and had during this time undergone the usual medical treatment with rest and starvation, and without any betterment of the symptoms before being referred to him. She remained in hospital under his care for seven weeks, during which time "a needle was twice introduced and a large area of the posterior wall was treated. . . . She returned to the hospital in January, 1910, had a needle introduced once, remained in hospital for a month, and was able to go home in a cab. . . . She returned to hospital in October, 1910, remaining there for a month, and on this visit had two needles introduced simultaneously on two occasions, at an interval of a fortnight." . . . "In July, 1912 (three years after treatment was first instituted), patient expresses herself as having been given a new lease of life and as feeling better than she had done for many years back."

The desirability of early diagnosis and treatment is urged; in large aneurisms leakage is predisposed to, and even needling, for this reason he states, may become undesirable.

It will be remembered that treatment by needling was first introduced in 1890, by Sir William Macewen, the idea being to lacerate the intima only to an extent sufficient to induce the formation of a "white clot" with subsequent organization. It was used in several cases by him and others, with varying results, and finally came into disuse owing to its uncertainty, the difficulty of limiting the effect of the puncture to the internal surfaces, and the fact that the aneurism is already lined with laminated clot. So far as the last objection is concerned, it has been demonstrated by Matas that even in false aneusisms there is formed a lining of endothelium, which is in all respects similar to the normal lining of the vessel. This is also formed over the laminæ of the aneurysmal sac, and hence could be expected to react to the stimulus,

It is interesting to note that as far back as 1852 an operation consisting of the rubbing together of the walls of the sac after it had been emptied of blood, was proposed and first executed by Mr. Ferguson, of King's College, London. His first case died some time after an apparent improvement had resulted, death being due to sepsis and embolism. In a second case by Mr. F. permanent cure resulted, but not until two years later. (Gross' System of Surgery, 3d edition, 1866, pages 699-700.) The modus operandi was not given by Ferguson, but the fact that a two years interval elapsed in the second case would rather point to a similar physiopathology as that observed in needling.—New Orleans Medical and Surgical Journal.

MEDICAL

DIABETES AND TUBERCULOSIS.

C. M. Montgomery states that the evidence which he has collected does not show that tuberculosis occurs more frequently in diabetes than in the general population at the same age periods. However, one is impressed by two facts: (1) the lowered opsonic index to the tubercle bacillus and a number of other bacteria in diabetes; and (2) the large number of cases of diabetes late in the course of the disease developing a very acute, extensive, and rapidly fatal form of pulmonary tuberculosis. Tuberculosis occurs more frequently in diabetes than in certain other chronic diseases. The frequency of tuberculosis in diabetes varies with a great variety of different circumstances. In the author's 25 collected autopsies on diabetic patients, six showed active pulmonary tuberculosis varying in acuteness and extent of involvement, and one showed adrenal tuberculosis without tuberculosis elsewhere. Out of 355 autopsies collected from the literature since 1882, including also the author's 25 cases, 138 (38.9 per cent) revealed pulmonary tuberculosis, mostly in an acute form. In some structures, for example, the bones, the author could not find a single case of tuberculosis in a diabetic patient. When

diabetes and tuberculosis are associated the diabetes can usually be shown to be the primary disease, in a number of cases it is impossible to show which is the primary disease, and in no case that the author has encountered has the tuberculosis been definitely proved by the evidence furnished to be the primary disease. When diabetes and tuberculosis are associated in the same patient either disease may show certain modifications in course and symptomatology, but often each disease runs a course apparently independent of the other. Like the clinical course the autopsy findings may reveal nothing unusual in regard to the tuberculosis, but in a number of cases one meets a tuberculous process that is marked by acuteness, the extensiveness of the disease, and a tendency to the early development of cavity formation. From the number of cases that have improved both as to their tuberculosis and their diabetes, one can not consider the combination of diabetes and tuberculosis as necessarily more hopeless than the diabetes or the tuberculosis alone. The prognosis in many cases depends largely on the treatment. — American Journal of the Medical Sciences.

ARTIFICIAL PRODUCTION OF PNEUMOTHORAX IN PHTHISIS.

The cases which Chitty considers as specially suitable for this treatment are: 1. Those in whom the disease is advanced on one side, while the opposite lung is unaffected, slightly affected, or quiescent. 2. Those in whom the temperature remains high in spite of the usual methods of treatment, and who show signs of auto-inoculation whenever they take any exercise. 3. Cases which are going downhill in spite of the usual methods of treatment. 4. Early unilateral cases for whom sanatorium treatment is not available. Especially does this apply to the bread-winner of the family. 5. Cases of severe recurrent hemoptysis. One is often in doubt as to which side is giving rise to the bleeding, but in these cases it would be quite justifiable to compress the worse lung, and, if this had no effect, then to aspirate the gas and repeat the operation on the other side. 6. Although most of the recorded cases have been patient's suffering from chronic tuber-

culosis, yet this has not been by any means invariably so, and some cases of acute phthisis have been successfully dealt with.—

The Journal of the American Medical Association.

MUCOCELE OF ANTERIOR ETHMOIDAL CELLS.

E. C. Alles states that mucocele of the ethmoidal cells alone, without any of the other sinuses being affected at the same time, is rare. Again, acute or subacute purulent sinusitis of the ethmoid is more frequent than are chronic sinusitis of the ethmoid is more frequent than are chronic degenerative inflammations. As to the causes of a mucocele there are two: it may be either caused by a chronic catarrhal inflammation of the mucous membrane lining the sinus, the ostium of which has become previously occluded; or it may be due to an occlusion of one of the ducts of the glands of the lining mucous membrane, and consequent dilatation of it. The contents of a mucocele consist of epithelial cells, blood corpuscles, and fluid containing mucin.—Medical Record.

QUININE IN URTICARIA.

A very pertinent suggestion is that of Wolff, of Berlin, as referred to in the Boston Medical and Surgical Journal. He found that quinine had value in urticaria through trying it on his own six-year-old daughter. Then he tried it in six more cases, and with brilliant results in every instance. In urticaria, the writer says, there is, judging by the symptoms, an irritant which acts upon the vessel nerves, especially on those of the skin. It is to be assumed that this irritant is represented by a chemical substance that is generated in the intestinal tract. So much is common to all the theories of the pathogenesis of urticaria. According to the etiology it is possible, therefore, to obtain favorable therapeutic effects from the employment of different medicaments. Most cases of urticaria are surely caused by an intoxication, arising in the intestinal canal, an anaphylaxis, as has been maintained of late. Following Friedberger's discovery that anaphylaxis is caused by the absorption of albumen from the intestine, it is even possible theoretically that every albuminoid nutritive may produce anaphylaxis, i. e., in this case urticaria, and that a complete elimination of albumen from the diet, with the ingestion of only fats and carbohydrates for a time, is worth a therapeutic trial in obstinate cases of urticaria. A further argument for the anaphylactic nature of urticaria may be adduced from the successful use of chloride of lime and atropin in this affection. The writer thinks it probable that quinine may also prove of value in other affections that may be due to anaphylaxis. —The Medical Fortnightly.

AN UNUSUAL FORM OF MUSCULAR CRAMP.

Oppenheim (Neurol. Centralbl., No. 19, 1912) observed a series of cases of a peculiar form of muscular cramp occurring in young people of both sexes, aged 8 to 14 years. The patients all belong to the Jewish race. He calls the disease "dysbasia lordotica progressiva," or "dysonia musculorum deformans." The muscles affected are chiefly those of the thigh, the pelvis and spinal column used for standing erect and walking forward. The charactertistic symptoms are a marked "lordosis" or "lordo-scoliosis" of the lower thoracic and lumbar spinal column, with a definite declination of the pelvis. The legs show a tendency to an abnormal position, and the patient finds it difficult to stand. An attempt to walk increases the symptoms considerably, and the patient is sometimes obliged to rest his hands on his knees or support himself with a stick. He soon becomes exhausted by walking, and perspires profusely, his pulse increasing in frequency. The symptoms are chiefly connected with locomotion, and, when the patient is in a horizontal position, either disappear completely or are markedly diminished. On close examination some of the muscles showed a tendency to tonic contraction, while others were distinctly hypnotic. No paralysis was present, no electrical changes were found. Sensation and speech were normal. In certain points the affection resembled chronic chorea, and still more athetosis. The author remains uncertain as to the nature of the disease, but its progressive character leads him to think that minute changes in the central nervous system are at the root of it, and that these affect certain regions governing or influencing the muscle tonus.—New Orleans Medical and Surgical Journal.

Treatment of the Vomiting Cough of Tubercle.

Paillard (Journ. de Med. et de Chir.) concludes a thesis on the functions of the diaphragm with a study of the above conditions. Numberless drugs are in use, the patients changing the remedy every four or five days; the vomiting, temporarily arrested, returns more obstinately than ever. Chloroform water—used with success by Matthieu and Roux, though it has failed in the experience of many doctors—seems to give more lasting results than other drugs, but the time of administration is most important. It should be given immediately after the ingestion of food, before the fit of coughing begins. By calming the nervous excitability of the stomach the starting of the reflex is prevented. To the same end Lion gives 20 grammes of bismuth subnitrate diluted with two-thirds of a glass of water. Paillard insists on the necessity of rest after meals; exertion brings on breathlessness. which may sometimes cause vomiting cough. Rest ought to be taken in the right lateral decubitus, which has two advantages the pylorus is in a position favorable to the emptying of the stomach, and there is the least amount of displacement of the left diaphragm. But the essential therapeutic point is a short inhalation of oxygen at the opportune moment. Pillard instructs his patients thus: "Have a bag of oxygen constantly at the foot of your bed. After a meal, when you feel the fit of coughing coming on, take up the bag and breathe a few whiffs of oxygen; the fit of coughing will not occur, or, if it does, it will be slight and you will not vomit; if there is any tendency for it to return some minutes later, breathe a little more oxygen. Above all, follow your appetite, and do not let the fear of vomiting restrict your diet. Do not forget that you ought to breathe little oxygen at a time, and that the same bag ought to last you at least four or five days." Under this treatment Paillard has found that the trouble disappears, generally at the first attempt. The result is lasting in

the great majority of cases if the inhalations are continued for some weeks; rarely (three times in thirty-two) the vomiting reappeared, but the combination of chloroform-water treatment with the demonstration was sufficient to effect a complete cure.—

British Medical Journal.

ON THE ACTION OF GELATIN.

After the administration of gelatin as a hemostatic Dr. Vladimir Michl noted in a number of cases in which the patient had been greatly debilitated that a few days after commencing the administration of gelatin the general condition of the patients showed a surprising improvement. The high temperature fell to normal, the secretions from the granulating wounds became less, the granulations thus became firmer, more resistant, and the patients, who in many cases had been considered as lost, approached recovery.

Dr. Michl says in a communication to the Wiener Medizinische Wochenschrift for June 22 that he was in this manner lead to employ gelatin deliberately in various suppurating processes and that he now orders it regularly in all septic and septicopyemic diseases, especially in thrombophlebitic processes, and he has seen such remarkable results that he requests the more general administration of gelatin for the purpose of deciding whether his observations are based upon an actual beneficial effect to be derived from this substance.

Ten grams of gelatin are dissolved in 100 to 120 grams of water boiled for one or two minutes and mixed with a small amount of sugar and lemon juice. This amount is a daily dose which may be taken either at once or in the course of a few hours, cold or lukewarm.

Dr. Michl usually orders, in addition to the gelatin, hourly doses of a one- to two-per cent solution of collargol (one table-spoonful. He says that this mode of administration, which is very simple, is usually effective, and that he has rarely injected the gelatin solution subcutaneously or into the rectum. He further orders the administration of gelatin one or two days before

operation in cases where there is a suspicion of hemophilia or in operations which are sometimes attended by profuse hemorrhage. He suggests that it might well be given in such cases where there is cause to fear severe wound infection.

If it should be shown that gelatin has the power in some manner of strengthening the tissues, as is indicated by Dr. Michl, it would certainly form an extremely simple prophylactic and curative remedy which is not only taken easily but has in addition the advantages of a nutritive action.

Gelatin has long been used as a nutrient, especially in febrile cases, because it saves albumen, and the patients bear the strain of fever more easily and becomes less debilitated when they receive generous doses of gelatin. It would be interesting to act upon this suggestion of Dr. Michl and to report results.—The American Journal of Clinical Medicine.

TOBACCO AND LUNG DISEASE.

The statement that tobacco prevents lung disease seems to be true to a certain extent. It is clear that tobacco and tobacco smoke are antiseptics and germicides of considerable power, and that their action on the pulmonary circulation is useful in relieving or preventing any tendency to chronic congestion of the lungs. Many doctors in various countries have remarked the comparative immunity from pulmonary diseases enjoyed by workers in tobacco factories. There are also cases recorded (by Reuff) of persons who exhibited serious symptoms of consumption, such as emaciation, blood spitting, and cough, and who got rid of them all after working for a time in tobacco factories. Tassinari, in Italy, has proved by elaborate experiments that tobacco kills microbes, and he strongly recommends smoking as a protection against cholera. Visalli, during the influenza epidemic of 1889, noticed that workers in tobacco factories almost entirely escaped. The same thing was remarked in Genoa and in Rome. Tobacco smoking has also been recommended by some doctors in the treatment of consumption.—Family Doctor,

OBSTETRICAL

SUPPRESSION OF CONVULSION IN ECLAMPSIA.

In two cases Wallace tried the treatment advanced by Murray. The 25 per cent solution of magnesium sulphate was employed after sterilization. The dose was regulated by the body-weight of the individual patient, 1 c.c. being allowed for every 25 pounds of body-weight. A rough estimation of weight had to be made from height and bulk. The needle was introduced in the middle line between the third and fourth lumbar spines. In each case after injection an interval of freedom from convulsions ensued. In one case seven fits occurred during the seven and a half hours preceding injection, none during the subsequent seven hours. In the second case, six fits preceded the injection (three of them were severe) , while none occurred during the following hours. Case 1 was an ordinary one of eclampsia; the patient would probably have recovered in any case and the child might have been born alive. On the other hand case 2 was a severe one and the outcome was doubtful. Wallace feels assured that but for the two intervals of four and four and a half hours, respectively, a dead child would have been born.—Journ, of the Am, Med. Assn.

HYPOPHYSIS EXTRACT IN ECLAMPSIA.

Krakauer tested the oxytocic action of this substance in a case of eclampsia in a young multipara of excellent muscular development. She had never been ill and the convulsions appeared without any warning. When first seen she was unconscious. It was only learned that she was not known to be pregnant over seven months and had a pendulous abdomen. Taken to the hospital, she received narcotics and chloroform, the spasmophilic state being extreme, along with wet packs. There were no signs of labor, and no fetal heart sounds were audible. Attempts were made to induce labor by rupturing the membranes and passing a soft catheter into the uterus. Dilatation was extremely slow,

and after 12 hours there had been but few pains and the os would only admit the finger tip. Hypophysis extract was now injected. The woman being still unconscious, the action of the pains was not very sensible, but in two hours the child was expelled dead. When consciousness was regained the woman, who had not expected her confinement for two or three months, could not realize what had happened. The child was mature, and it was impossible to fix the time of its death.—Medical Record.

PREGNANCY AFTER ARTIFICIAL IMPREGNATION.

Dr. I. Hirsch (Berlin, klin, Wochensch., Nov. 29, 1912) points out that Marion Sims was the first to devise a method of introducing spermatozoa directly into the uterus. He refers to the importance of mastering the technic of the procedure, since his six successes in the last nine cases treated. It was carried out in the home of the patient. The spermatic fluid was withdrawn undiluted from the condom by means of a dry sterilized Braun syringe. The syringe was warmed to about 38 C. by means of a metal blade attachment which was heated at one end by an alcohol lamp. The spermatozoa are more sensitive to heat than to cold. The uterus was grasped at the portio and drawn straight downward, so that the nozzle of the syringe would cause as little injury to the mucous membrane as possible. Previous irrigation of the vagina was avoided as well as any unnecessary manipulation. Only a few drops of spermatic fluid were introduced in order to avoid uterine colic. A tampon moistened with the remainder of the spermatic fluid was placed against the portio vaginalis. The woman was directed to rest in bed for eight to twentyfour hours. Before resorting to this procedure it is necessary to determine the caliber of the cervical canal and dilate it in case of stenosis, as well as to correct any existing retroflexion or other displacement. The presence of gonorrhea in either husband or wife should be ascertained and the spermatic fluid first examined for active spermatozoa. Artificial impregnation is preferably undertaken immediately after the cessation of a menstrual period, and not, as a rule, until the lapse of five years of sterility.

In one of Hirsch's cases, however, the attempt was made after three years of a barren marriage on account of the advanced age of the woman (36 years), with success at the fifth attempt. In conclusion, the author refers to the statistics of Rohleder that one-half of the 10 per cent of sterile marriages can not be relieved by the customary measures, and that accordingly in these artificial impregnation is to be considered, as it gives 33.5 per cent of success.—Medical Sentinel.

WHEN IS THE HIGH FORCEPS OPERATION JUSTIFIABLE.

Dr. James A. Harrar read this paper. He said that the extending of the indications for cesarean section had placed the high forceps operation on the defensive, many of our best obstetricians going so far as to deny it a place among the recognized methods of treating dystocia. When the forceps was used, as it so often was, to do what amounted practically to a cranioclasty, it was utterly to be condemned. The term high forceps was understood to indicate application of the instrument to the fetal head when its largest diameters were still above the plane of the pelvic inlet. The writer took exception to the statement, "Never apply forceps to the head above the brim," This might be a safe working rule to hand the general practitioner for his proper guidance, but in the hands of the experienced operator there were not a few cases where a baby's life might be spared or a mother's morbidity avoided by the judicious use of the high application. It was a major operation, not to be undertaken except by one well versed in pelvic obstetrical work. The bad results were usually due to faulty judgment in the selection of procedure. The operator then perverted his forceps delivery into a procedure destructive alike to mother and child. There should be ideally no such thing as a "hard high forceps" in the sense of brute force. These admonitions had been made before, but they would bear repetition. High forceps was never an elective operation. A common problem was the decision between version and forceps in deformed pelves of moderate degree. The fetal mortalities distinctly favored high forceps in the ratio of 17 to 25 per cent

at the best. The idea that it was easier to snap a head through a contracted pelvic brim with a version than with a forceps too often proved disastrous to the unfortunate head. It is valuable to divide contracted pelves of moderate degree into two classes. depending upon whether the head could be made to engage in the brim by suprapubic pressure, properly directed under anæsthesia, or not. If it would so engage it was a "workable contraction" either for spontaneous delivery or forceps. If it would not so engage it was a "dangerous contraction" and might demand pubiotomy, craniotomy, or even the performance of a cæsarean section. It was not the indication, which were few, so much as the situations which arose, in which it was advisable to apply forceps to the head above the brim, that were of interest. They saw so many cases when it was already too late to do the proper operation which should have been done had they been earlier in charge of the labor. There was nothing left to do but a possible forceps or a craniotomy. A used and abused uterus was inelastic and would rupture readily with a late version. Great aid was rendered in the simple flat pelvis by putting the patient in the Walcher position. Inertia uteri, in multipara, delayed dry labor in normal pelves, dystocia resulting from rigidity of the cervix, neglected presentations of the brow at the brim, were situations, illustrated by case reports, in which the high application of forceps was justifiable. Before applying forceps to the floating head, first be assured by suprapubic pressure that the head could be made to bite into the brim. If it should not so engage it was almost certain that it could not be safely delivered with forceps, except with the aid of pubiotomy. One should always desist from further attempts with forceps if after one or two moderate tractions on the instrument the head failed to enter the pelvis.—Medical Record.

Editorial

Publisher's Notice—The Journal is published in monthly umbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail. either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

IODINE STERILIZATION OF THE SKIN.

Painting the skin with iodine at the site of surgical operations for sterilization purposes has become very popular with surgeons. The method naturally appeals to the operator, as it is one that is always ready to hand, is quickly applied and apparently is efficacious in its results. Aside from the fact that the older methods of making the ante-operation toilet requires time, patience and thoroughness to insure results, and aside from the fact that the painstaking care with which this procedure frequently impresses the nervous system of the patient for the worse-the vigorous scrubbing the method entails with brushes and with towels necessarily produces an infinite number of minute traumatisms of the skin, that instead of conducing to the removal of pathogenic micro organisms might possibly encourage their propagation and multiplication. An extract in the December number of Monthly Cyclopedia, by W. M. Brickner, M.D., refers to the iodine sterilization of the skin, speaks of its superiority over the "scrubbing up" plan, and refers to some important points in its employment. A requisite is that the skin should be free from moisture at the time of its application. This writer says the official U.S.P. tincture—7 per cent should be used, though we use a 2 per cent alcoholic solution of the crystals. Washing of the parts should be done several hours before the operation, and before painting the skin, moisture should be removed with benzine, alcohol or ether. It is claimed that good results may be obtained

without the employment of any washing, as in lacerated wounds of grimy hands injured in machinery, etc. The iodine dermatitis is infrequent, except where vigorous ante-operative scrubbing has been employed. The method is contra-indicated in a few cases, as in hyperthyroidism, in instances of unusually sensitive skin, on the face and the genitalia. Undoubted, the method from its simplicity and ease of application, and its apparent efficiency in sterilization, has much to commend it and to render it popular with the profession.

BRITISH MEDICAL ASSOCIATION SUED.

This association, which has had bad luck with its damage suits, has been sued again. There were three candidates for a position in London. It was found that the salary offered was lower than it should be, so two withdrew. One Dr. Patrick Toseph O'Sullivan remained in the race and won out. The British Medical Tournal in commenting on the case referred to O'Sullivan's professional experience and his relations with his partner, concluded by asking, whether the army, the land or the presumable land of his birth should be the subjects of condolence or congratulation on his absence from home. The plaintiff appeared in court and contended that the words of the article intended to mean that he was a person of slight experience and doubtful qualifications, and that he was disloyal to his profession and a disgrace to the persons with whom he had associated and a disgrace to his native land. The jury decided that the article was only a fair comment, and judgment was entered for the defendants.—E. S. McK.

Peculiar Action Against a Surgeon.

The patient had been anæsthetized with chloroform and the field of operation, appendicitis, washed with soap, ether, and alcohol, which were then wiped up with compresses. Now the patient had been afflicted with coxalgia in his youth, and the well-

known resulting deformity formed a hollow in the inguinal fold. In this fold some of the alcohol collected and remained unnoticed. The operating surgeon noticed a patch of acne from which he feared a possible infection and proceeded to burn it with the thermo-cautery. The collected alcohol caught fire, resulting in a severe and extensive burn. The patient brought suit for damages. The court appointed three experts to report as to whether the operating surgeon was at fault. They reported to the court that there was no fault on the part of the operating surgeon, attributing the accident to the deformity in the patient's hip. The court, however, did not heed the report of the experts, but ruled that the operating surgeon was liable at civil law for professional negligence, in that he was well aware of the patient's deformity, and consequently had erred in not taking precautionary measures. Damages to the amount of \$3,000 dollars were awarded. Had the surgeon been lax in his duty and not burnt that acne he would have probably escaped better.—E. S. McK.

Physician (Male). February 5, 1913.

The United States Civil Service Commission announces an open competitive examination for physician, for men only, on February 5, 1913, at the places mentioned in the list printed hereon. From the eligibles resulting from this examination certification will be made to fill a vacancy in the Indian Service at each of the following places, and vacancies as they may occur in positions requiring similar qualifications in any branch of the service, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion:

Navajo Agency (Tohatchi Boarding School), \$1,000 per annum.

Cheyenne River Agency, South Dakota, \$1,000 per annum. Western Navajo Agency, Arizona, \$1,200 per annum.

Competitors will be examined in the following subjects, which will have the relative weights indicated:

| Subjects | eights. |
|--|------------|
| Letter writing, the subject matter to be upon an assigned topic of medical or surgical interest)_ Anatomy and physiology (regional and minute) | 5 |
| anatomy, general physiology, the physiologic functions and relations of organs)3. Surgery and surgical pathology (general and | 10 |
| special surgery, surgical diagnosis, pathology, treatment, and technic) | 15 |
| 4. Chemistry, materia medica and therapeutics (elementary questions in inorganic and organic chemistry, the physiologic action and therapeutic uses and doses of drugs) | 10 |
| 5. Bacteriology and hygiene (the technic of bacteriologic laboratory methods and the practical application of the principles of bacteriology and hygiene to prophylaxis and treatment) | 15 |
| 6. General pathology and theory and practice of medicine (the etiology, pathology, symtomatology, and treatment of diseases) | 20 |
| 7. Obstetrics and gynecology (the general practice of obstetrics, diseases of women, their etiology, pathology, diagnosis, symptoms, and treatment, | |
| medical and surgical)8. Training, experience, and fitness | 10 - 15 |
| Total | 100 |

Applicants must be graduates of recognized medical schools. Students who are members of the graduating class of any recognized medical school will be admitted to examination, but their names will not be entered upon the eligible register until they furnish a certificate from the dean of the college showing that they have been graduated.

Statements as to training, experience, and fitness are accepted subject to verification.

Each applicant for a position in the Indian Service is required to be in good health, and must attach to his application a statement concerning the number in his family and the number that will require accommodations at the Indian school or agency in case he receives appointment.

Age, 21 years or over on the date of the examination, but eligibles who are more than 40 years of age on that date will not be certified for filling vacancies that may occur in the Public Health Service.

This examination is open to all men who are citizens of or owe allegiance to the United States and who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for Form 1312. No application will be accepted unless properly executed, including the medical certificate, and filed with the Commission at Washington. In applying for this examination the exact title as given at the head of this announcement should be used.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The Commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

Issued December 31, 1912.

"Medicated Cotton."

It is doubtless true that a too keen appreciation of wit is a detriment in the practice of medicine, and it often proves mischievous to allow oneself to give way to merriment.

The other day there came in to consult me a Mr. Cotton. He had a swollen superior jaw. The whole left side of his face was swollen. He looked painfully ludicrous. Had the other side been swollen it would not have appeared so comical.

I anointed my finger with Abbott's Antiseptic Oil and made an

examination of the inside of the mouth. I found no pointing of the abscess and no excuse for the knife. I applied some of the Oil on the gum and some on the inside of the cheek. I gave him some of Abbott's Acetanilid and Codeine Compound tablets and ordered him to take one every hour while in pain. I also ordered some of Abbott's Saline Laxative.

Just as he was leaving I said: "Mr. Cotton, if I were not afraid it would break your face I would perpetrate a pun."

He fixed his face in painful expectancy and lisped: "Perpetrate?"

Whereupon I said: "Mr. Cotton, you are now medicated Cotton."

The painful contortions of his face were heart-rending.

E. S. McKee, M.D.

Cincinnati, Ohio.

The National Conference of Hookworm Experts which met at Little Rock, Ark., last week elected the following officers for the ensuing year: Dr. Olin West, Nashville, Tenn., President; Dr. A. G. Fort, Atlanta, First Vice President; Dr. Sydney Porter, New Orleans, Secretary.

Dr. A. L. Winston announces to the profession his removal from Memphis, Tenn., to Colorado Springs, Colo. Office: Suite 64, First National Bank Building. Special consideration accorded tubeculous patients.

The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed travel study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by traveling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the locali-

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ties visited. For those unable to speak the languages of the countries on the continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by traveling with such a party.

The coming International Medical Congress, London, August 6-12, 1913, gives a splendid opportunity for organizing an American tour of this sort, and plans are now ready for a Physicians' Travel Study Tour, leaving New York July 3 for the most important capitals and health resorts on the European continent: Paris, Munich, Carlsbad-Marienbad, Dresden, Berlin, Nauheim, Wiesbaden, Cologne, Brussels, the Hague, Amsterdam, etc., ending with the week of the Congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, Ch. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a trip should write for further and more detailed information to RICHARD DAVIES, M.D.

236 East Sixty-ninth Street, New York City.

Reliebs and Book Notices

Thirty-ninth Annual Report of the Secretary of the State Board of Health of the State of Michigan for the Fiscal Year Ending June 30, 1911. Lansing, Mich. Wynkoop-Hallenbeck-Crawford Co., State Printers. 1912.

We acknowledge the receipt of this excellent report for the year ending June 30, 1911. It compares favorably with the preceding report of this progressive state board of health, and contains a great deal of valuable statistical information for the practitioner. The reports on the comparative mortality of various diseases in the state show tuberculosis to have claimed the greatest number of victims, with pneumonia a close second. The extreme fatality of tetanus is referred to in an item, which gave forty-six cases, all of which proved fatal. The volume is very interesting and instructive throughout and should prove especially valuable to all physicians interested in disease prevention.

Transactions of the American Otological Society.—Forty-fifth Annual Meeting. Hotel Chelsea, Atlantic City, N. J., June 10 and 11, 1912. Volume XII. Part 3. Published by the Society. Mercury Publishing Co., Printers, New Bedford, Mass. 1912.

Volume XII of this interesting publication of the Transactions of the American Otological Society has been received. In looking over the contents and reading some of the papers we find much of extreme value to specialists, and a great deal of a valuable nature to the general practitioner. The society is to be congratulated upon the creditable manner in which the proceedings have been prepared and upon the flourishing condition which this report shows the organization to have. Every specialist of this important branch should have in his possession a copy of this volume.

Text-book of Ophthalmology in the Form of Clinical Lectures, by Dr. Paul Roemer, Professor of Opthalmology at Greifswald. Translated by Dr. Matthias Lanskton Foster, Member of the American Ophthalmological Society; Member of the American Academy of Ophthalmological Society.

mology and Oto-laryngology, with One Hundred and Eighty-six Illustrations in the Text, and Thirteen Colored Plates. Volume II. New York. Rebman Company, 1123 Broadway.

This is Volume II of a very excellent and instructive text-book in the form of clinical lectures delivered by the distinguished opthalomologist, of Greifswald. The book is essentially practical, and is amply supplied with illustrations and a number of colored plates. The text is clear, concise and clearly understood. For the use of students and practitioners it will serve an excellent purpose as a guide and reference book. For the specialist in this department it is invaluable. The illustrations are for the most part original, and they add very materially to the usefulness of the book. The publishers are to be commended for having placed such a work before the profession in this country. The work of the translator is also to be highly applauded. We take pleasure in recommending the work to every medical man.

The Taylor Physicians Pocket Account Book.—Convenient, Conscise, Compresensive. Just the thing for the General Practitioner. No Ledger; No Posting; No Cypher Code; Meets all the Legal Requirements in Case of Suit. Entries Are Made with Such Care and Rapidity that their Entry is Insured.—E. S. McK.

Publisher's Department

"How to Start a Rifle Club."

A very interesting 16-page illustrated booklet has just been issued by the Stevens Arms & Tool Co., Chicopee Falls, Mass., entitled "How to Start a Rifle Club." This booklet tells in detail what the National Rifle Association has done for the encouragement of rifle practice in this country—incorporates by-laws, pointers on Shooting, how to build a rifle range, N. R. A. trophies and Medals. It also describes the famous Stevens "Semi-military" and "Armory Model" rifles, which have such a string of notable victories to their credit the past season. The various achieve-

ments of these target rifles are listed in detail. The cover of "How to Start a Rifle Club" shows in their actual colors, the flags of the six nations which have accomplished the most in educating the youths of their respective countries in the proper use of the rifle and in the formation of rifle clubs.

Every boy and every boy's father, guardian or school teacher should send for this splendid booklet at once. Write to J. Stevens Arms & Tool Co., Chicopee Falls, Mass., makers of the largest line of sporting firearms in the world.

A DEPENDABLE ANODYNE.

The uses of Papine are almost unlimited. In the main they are, however, diarrheal affections, such as gastro-enteritis, cholera morbus and infantum dysentery; diseases of the nervous system attended with pain, such as neuralgia, neuritis, hysteria, and locomotor ataxia; painful disorders of the utero-ovarian tract, as dysmenorrhea, uterine colic, ovarian neuralgia; and also other conditions attended by severe pain, such as biliary and renal colic, and the chest pains of pleurisy, pneumonia and tuberculosis.

Papine has also been strongly recommended in the treatment of diabetes. This product has the great advantage that it can be used without locking up the secretions, or inducing habit as in the unfortunate case with other opium preparations.

The usefulness of good hypophosphates in pulmonary and strumous affection is generally agreed upon by the profession.

We commend to the notice of our readers the advertisement in this issue. "Robinson's Hypophosphates" is an elegant and uniformly active preparation; the presence of quinine, strychnine, iron, etc., adding highly to the tonic value.

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ELEGANT

PHARMACEUTICAL SPECIALTIES

Attention is called to the EXCELLENCE and VALUABLE THERAPEUTIC PROPERTIES of these PREPARATIONS

Robinson's Hypophosphites

NUTRITIVE. TONIC, ALTERATIVE.

A STANDARD REMEDY in the treatment of Pulmonary Phthisis, Bronchitis, Scrofulous Taint, General Debility, etc. Stimulates Digestion, promotes Assimilation.

Each fluidounce contains: R

| Hypophosphites | Soda 2 grains Lime 11/4 |
|----------------|-------------------------------|
| 44 | Iron 11/4 " |
| 44 | Quinine 34 "Manganese - 11/2" |
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Dose-One to four fluidrachms.

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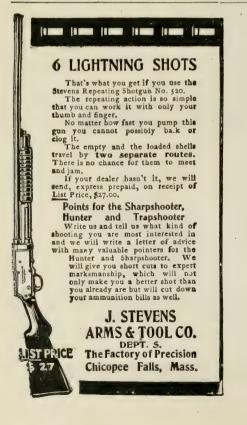
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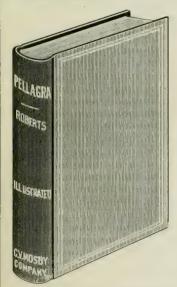
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